Earth Science

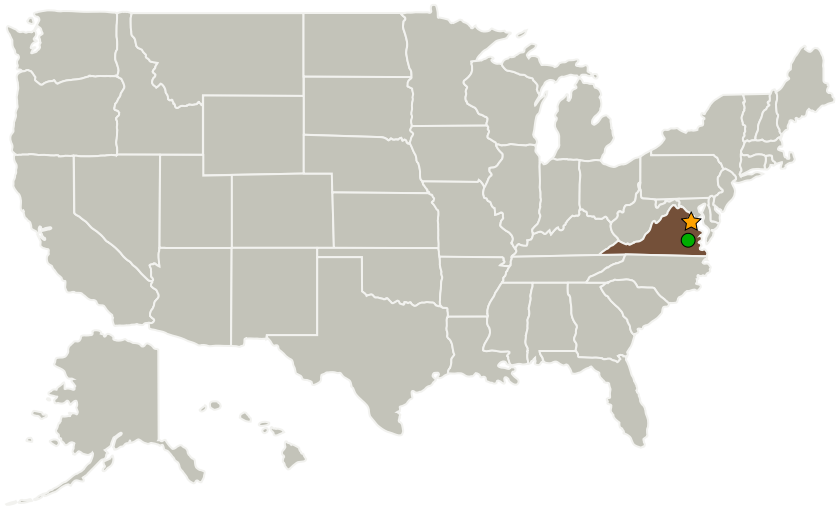
Development and Integration of a Pulsed 2-micron Direct Detection Integrated Path Differential Absorption (IPDA) Lidar for CO2 Column Measurement from Airborne platform

Completed Technology Project (2012 - 2014)

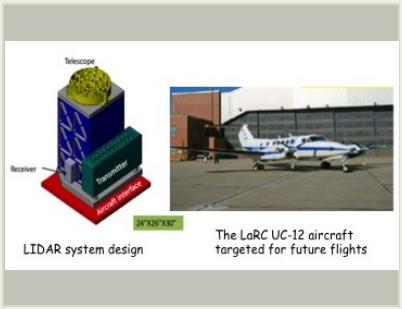
Project Introduction

Develop, integrate and demonstrate a 2-micron pulsed Integrated Path Differential Absorption Lidar (IPDA) instrument CO2 Column Measurement from Airborne platform
Conduct ground validation test to demonstrate CO2 retrieval
Conduct engineering test flights to demonstrate CO2 retrieval from UC-12 aircraft
Conduct post flight data analysis for the purpose of evaluation of CO2 measurement capability

Primary U.S. Work Locations and Key Partners



Organizations Performing Work	Role	Type	Location
NASA Headquarters(HQ)	Lead Organization	NASA Center	Washington, District of Columbia
Langley Research Center(LaRC)	Supporting Organization	NASA Center	Hampton, Virginia



Project Image Development and Integration of a Pulsed 2-micron Direct Detection Integrated Path Differential Absorption (IPDA) Lidar for CO2 Column Measurement from Airborne platform

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Primary U.S. Work Locations

Virginia

Images

11855-1360265589901.jpg
Project Image Development and Integration of a Pulsed 2-micron Direct Detection Integrated Path Differential Absorption (IPDA) Lidar for CO2 Column Measurement from Airborne platform
(https://techport.nasa.gov/image/1627)

Organizational Responsibility

Responsible Mission Directorate:
Science Mission Directorate (SMD)

Lead Center / Facility:
NASA Headquarters (HQ)

Responsible Program:
Earth Science

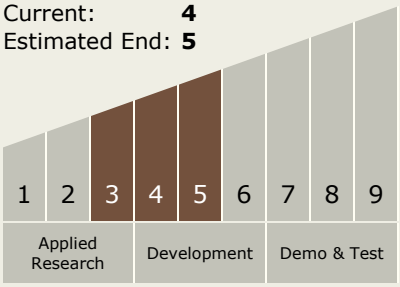
Project Management

Program Director:
George J Komar

Principal Investigator:
Upendra N Singh

Technology Maturity (TRL)

Start: **3**
Current: **4**
Estimated End: **5**



Technology Areas

Primary:

Continued on following page.

Development and Integration of a Pulsed 2-micron Direct Detection Integrated Path Differential Absorption (IPDA) Lidar for CO2 Column Measurement from Airborne platform

Completed Technology Project (2012 - 2014)

Technology Areas *(cont.)*

- TX08 Sensors and Instruments
  - TX08.1 Remote Sensing Instruments/Sensors
    - TX08.1.5 Lasers

Target Destination

Earth